

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A composite component having a negative effective Poisson's ratio, the composite component including a first component and a second component, the first component and the second component extending longitudinally relative to an axis, the first component being provided around the second component through one or more turns, the one or more turns being spaced longitudinally relative to the axis, wherein variation in the tensile or compressive load on the first component causing the variation in radial position of the second component relative to the axis ~~to vary~~.
2. (Original) A composite component according to claim 1, in which the first component has a higher modulus of elasticity than the second component.
3. (Currently Amended) A composite component according to claim 1 ~~or claim 2~~ having the first component ~~provided~~ arranged around the second component in a helical manner, wherein the variation in the tensile or compressive load on the first component causing variation in the diameter of the helix of the first component follows, the variation in the diameter of the helix of the first component causing the second component to ~~take on the form of a helix and/or causing~~ variation in the diameter of the helix of the second component ~~to vary~~, so that the diameter of the second component helix ~~increasing~~ increases as the diameter of the first component helix decreases ~~in diameter~~, and the diameter of the second component helix ~~decreasing~~ decreases as the diameter of the first component helix increases ~~in diameter~~.
4. (Currently Amended) A composite component according to ~~any preceding~~ claim 1, in which the first component is provided around the second component by applying and/or wrapping and/or covering and/or spinning.
5. (Currently Amended) A composite component according to ~~any preceding~~ claim 1, in which the first component is a fibre, rod or hollow tube of a relatively high modulus material and the second component is a fibre, rod or hollow tube of an intermediate or a low modulus material compared with the first component material.
6. (Currently Amended) A composite component according to ~~any preceding~~ claim 1, in which the axis is provided through a core component.

7. (Currently Amended) A composite component according to ~~any preceding claim 3~~, in which the variation in radial position is an increase in the displacement of at least a part of the second component relative to the axis when the load is varied, with the variation being an increase when the load is a tensile load and a decrease when the load is a compressive load.
8. (Currently Amended) A composite component according to ~~any preceding claim 3~~, in which the variation in radial position is a decrease in the displacement of at least a part of the second component from the axis when the load is varied, with the variation being a decrease when the load is a tensile load and an increase when the load is a compressive load.
9. (Currently Amended) A structure comprising two or more composite components ~~provided according to any of claims 1 to 8~~ each of said components having a negative effective Poisson's ratio, each composite component comprising a first component and a second component extending longitudinally relative to an axis, the first component being provided around the second component through one or more turns, the one or more turns being spaced longitudinally relative to the axis, wherein a variation in the tensile or compressive load on the first component causes a variation in radial position of the second component relative to the axis.
10. (Currently Amended) A structure according to claim 9 ~~in which the structure includes comprising at least a pair of composite components, each composite component including a first component and a second component, the said pair of composite components being arranged adjacent to one another or in contact with one another.~~
11. (Currently Amended) A structure according to claim 9 ~~or claim 10 in which~~ wherein the structure is formed from repeats of a unit comprising multiple composite components.
12. (Currently Amended) A structure according to ~~any of claims 9 to 11~~ claim 9, ~~in which the structure is provided by wherein~~ each composite component ~~being provided is~~ adjacent to or in contact with two or more other composite components, so as to form a planar or sheet type structure.
13. (Currently Amended) A structure according to ~~any of claims 9 to 11~~ claim 9, ~~in which the structure is provided by wherein~~ each composite component ~~being provided is~~ adjacent to or in contact with four or more other composite components.

14. (Currently Amended) A structure according to ~~any of claims 9 to 13 in which~~ claim 10, wherein the first components of the adjacent composite components ~~are provided with first components that~~ are wrapped around the second component in opposite directions to one another.

15. (Currently Amended) A structure according to ~~any of claims 9 to 14~~ claim 9, comprising in ~~which the structure is provided with~~ one or more core components.

16. (Currently Amended) A structure according to claim 15 in which the core component is a fibre wherein said fibre ~~and/or~~ is solid or hollow.

17. (Currently Amended) A structure according to claim 15 ~~or 16 in which all~~ comprising three components ~~are provided so that there is~~ to allow limited movement or no movement of the components over each other.

18. (Currently Amended) A structure according to ~~any of claims 9 to 17 in which the structure includes~~ claim 9, comprising one or more matrix components.

19. (Original) A structure according to claim 18 in which the matrix component resists the movement of the second component caused by load variation and/or encourages the return of the second component to the radial position it occupied prior to load variation.

20. (Currently Amended) A structure according to ~~any of claims 9 to 19 in which the structure is~~ claim 9, which has energy absorbing, ~~for instance~~ impact absorbing and/or acoustic absorbing characteristics.

21. (Currently Amended) A method for producing a composite component having a negative effective Poisson's ratio, the method comprising the steps of:

forming a first component;

forming a second component; and

~~applying, for instance by wrapping and/or spinning and/or covering,~~ the first component around the second component through one or more turns, the one or more turns of the first component being spaced longitudinally along the second component.

22. (Original) A method according to claim 21, in which the modulus of elasticity of the first component is greater than the modulus of elasticity of the second component.

23. (Currently Amended) A method according to claim 21 ~~or claim 22, including wherein~~ applying the first component is applied around the second component in a helical manner, ~~variation~~ in the tensile or compressive load on the first component is varied causing variation in the diameter of the helix of the first component follows, the variation in the diameter of the helix of the first component causing ~~causes~~ the second component to take on the form of a helix and/or causing variation in the diameter of the helix of the second component to vary, wherein the diameter of the second component helix ~~increasing~~ increases as the first component helix decreases in diameter, and the diameter of the second component helix ~~decreasing~~ decreases as the first component helix increases in diameter.

24. (New) A method according to claim 21, wherein the applying is provided by wrapping, spinning or covering.